

In re Appln. of Charles LOVE
Application No. 09/793,597

09/763,597

REMARKS

Pending claims 1 and 14-16 were rejected under 35 USC §103(a) as being unpatentable over Takahar in view of Ohta. This rejection is respectfully traversed.

The combination of Takahar and Ohta is improper. Takahar discloses a method for the preparation of open cell porous metallic material, which is applied to filters. The object of Takahar is to provide a method for obtaining an open cell metallic material of a small pore size, uniformly distributed micropores, and high porosity.

According to the Office Action, Takahar does not teach applying pressure to a first portion and separately applying pressure to a second portion in a molding process, but Ohta does. However, the only reason Ohta teaches applying primary and secondary pressing forces is to properly orient reinforcing fibers, up to 40% volume fraction, in a fiber-reinforced composite material. Yet there are no reinforcing fibers in the open cell metallic material of Takahar. Further, one of ordinary skill in the art could not include the reinforcing fibers of Ohta in the fine pore, high porosity, porous metallic material of Takahar because the reinforcing fibers would increase the size of the pores and disrupt the distribution of the micropores, contrary to the stated object of Takahar.

One of ordinary skill in the art reading Takahar would never be motivated to use the primary and secondary forces of Ohta because she would never add the reinforcing fibers of Ohta to the porous metallic medium of Takahar. Ohta was combined with Takahar solely to supply one of the missing elements of claim 1, i.e., applying pressure to a first portion of a medium precursor and separately applying pressure to a second portion of the medium precursor. This is an improper combination of references based solely in hindsight on claim 1 of the application.

Claims 1 and 14-16 are patentable over Takahar and Ohta not only because the combination of references is improper but also because each claim defines an invention which is patentable over the combination. For example, independent claim 1 defines a method of forming a porous medium wherein the first portion and the second portion of a medium precursor are pressed along a common axis. Neither Takahar or Ohta disclose this feature.

Takahar fails to disclose any aspect of applying pressure to a first portion and a second portion of a medium precursor, as noted in the Office Action. Ohta teaches applying a primary pressing force and a secondary pressing force to a molding material. However, Ohta fails to teach that these pressing forces are applied along a common axis. In fact Ohta teaches directly away from this feature. According to Ohta, the primary

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pressing force and the secondary pressing force must be perpendicular to each other in order to properly align the reinforcing fibers, which is the principal object of Ohta. One of ordinary skill in the art reading Takahar and Ohta would find no disclosure or suggestion for pressing first and second portions of a medium precursor along a common axis, as set forth in independent claim 1. Consequently, claims 1 and 14-16 are patentable over Takahar in view of Ohta.

New claims 17-20 are patentable because they depend from patentable claim 1. New claims 21-31 are patentable, for example, for one or more of the reasons previously discussed. For example, independent claim 21 defines a method which includes moving first and second dies along a common axis. Similarly, independent claim 28 defines a method which includes displacing a first die and displacing a second die along a common axis. Both of these claims, as well as dependent claims 22-27 and 29-31, are thus patentable over the combination of Takahar and Ohta for the same reason claim 1 is patentable.

Respectfully submitted,

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JMB:ves

CERTIFICATE OF MAILING

I hereby certify that this Amendment (along with any documents referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450; Alexandria, VA 22313-1450.

Date: 1 April 2005